Pacific INVASIVES INITIATIVE

How to Eradicate Rodents and Cats on Islands

Nadi Fiji

11-15April 2011

Training Report

the David & Lucile Packard FOUNDATION

NEW ZEALAND Aid Programme

Department of Conservation *Te Papa Atawhai*

Plan to succeed

Prepare by: Pacific Invasives Initiative (PII)

Written by: Natasha Doherty

Citation: PII (2011). Training course report: How to eradicate rodents and cats on islands, 11-15 April 2011, Nadi Fiji. Unpublished report. Pacific Invasives Initiative, Auckland. pp.

Address: Pacific Invasives Initiative, School of Biological Sciences, The University of Auckland, Private Bag 92019, Auckland, New Zealand.
n.doherty@auckland.ac.nz

Acknowledgements: PII would like to thank everyone who has contributed to this training course, including New Zealand Department of Conservation, Stella Associates, Derek Brown and BirdLife Fiji Programme (Elenoa Seniloli)

Funders: The David & Lucile Packard Foundation and The New Zealand Aid Programme

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SUMMARY

The Pacific Invasives Initiative (PII) successfully completed the first "How to Eradicate Rodents and Cats from Islands Training Course" 11-15 April 2011, Nadi Fiji.

The training course provided participants with the knowledge and skills to carry out rodent and cat eradication projects. The training is based on the Resource Kit, which is a practical guide to assist project managers in developing and implementing rodent and cat eradication projects on islands. The Kit provides best practice processes, methods and lessons learned as, well as supporting tools (Guidelines, templates, references etc).

Participants of the training gave scores of 100% to questions about knowing the PII Project Process for eradication projects and overall opinion of the training. Comments offered included: "Congratulations to PII for creating this great tool! I especially appreciated the worked examples all along the project process"; "very useful in the sense of knowing and understanding steps to be taken when I will come up with project work" and "Great tool. Great Job!"

TRAINING TEAM

- Facilitator - Dave Wallace, Stella Associates
- Subject Matter Expert - Derek Brown, New Zealand Eradication Specialist
- Subject Matter Expert - Elenoa Seniloli, Birdlife Fiji Programme
- Subject Matter Expert - Souad Boudjelas, PII
- Resource Kit Coordinator - Graham Allen, PII
- PII Representative - Natasha Doherty, PII (Appendix 1)

PARTICIPATING AGENCIES

- Birdlife Fiji Programme - Fiji
- Ministry of Environment, Land and Agricultural Development - Kiribati
- National Trust of Fiji Islands - Fiji
- Pacific Invasives Learning Network - Samoa
- Province Sud – New Caledonia
- Societe Caledonienne d'Ornithologie – New Caledonia
- Societe d'Ornithologie de Polynesie Manu – French Polynesia (Appendix 1)

INTRODUCTION

Over the past decades, the eradication of rodents and cats has become an established management approach in the fight against the impacts of invasive species on island biodiversity. The PII Resource Kit provides project managers with a systematic approach to planning and implementing rodent and cat eradication projects on islands in the Pacific.

The need for the Resource Kit came from PII's experience working on invasive species projects with Pacific agencies. Because invasive species management is a relatively new tool for island restoration in the Pacific, a common constraint for agencies was access to an authoritative and consistent process and a source of information to effectively address the complexity of invasive species management.

To address this need PII, in collaboration with world leading eradication experts, developed a stepwise process and supporting tools to provide project managers with access to current eradication best practice. Use of the Resource Kit will give Pacific agencies the ability to embark on their invasive species management projects with greater confidence of achieving their desired island restoration goals.

The training focuses on training project managers on how to plan and implement rodent and cat eradication projects using the PII Resource Kit. PII invited eight project managers from seven different agencies from around the Pacific Region to participate in the first "How to eradicate rodents and cats from islands" Training Course. This training was different from future "How to eradicate rodent and cats from islands" training, as it was a pilot.

TRAINING COURSE PURPOSE AND OUTCOMES:

Purpose 1: To train participants on how to plan and implement rodent and cat eradication projects using the PII Resource Kit

Outcomes

- Know the principles that underpin the Resource Kit
- Know the PII Project Process for an eradication project
- Know the reasons and value for each stage and step in the process
- Be able to use the Resource Kit to locate information and resources to assist in completing each step in the project process
- Know where to access further learning resources and support
- Have a plan of "where to from here" for a project

Purpose 2: To test the training course with participants who are representative of the target group.

Outcomes

- Refined Resource Kit and training course

TRAINING COURSE TIMETABLE

Monday 11 April 2011
Getting underway
Setting the scene
Principles
Overview of process
What is in the Resource Kit?
Overview of the Resource Kit
Introduction to process stages
Review of projects
The training example
Wrap up
Cocktails

Tuesday 12 April 2011
Day 2 setup
Stage 1 – Project Selection
Stage 2- Feasibility Study
Progress check
Introduction to Stage 3 – Project Design
Wrap up

Wednesday 13 April 2011
Day 3 setup
Stage 3 – Project Design
Field trip
Wrap up

Thursday 14 April 2011
Day 2 setup
Stage 4 – Operational planning
Stag 5- Implementation
Wrap up
Course dinner

Friday 15 April 2011
Day 5 setup
Stage 5 -Implement
Stage 6 – Sustaining the project
Recap PII Project Process
Next steps
Wrap up of course

TRAINING CONTENT

The training used an interactive learning style; for each stage presentations were given and then participants were encouraged to ask questions. This was followed by group discussions and/or workbook activities (Appendix 3). At the completion of each stage, participants were given an evaluation sheet to complete.

DAY 1- MONDAY 11 APRIL 2011

Provided information on: the purpose and outcomes, importance of islands, threats from invasive species, management options for invasive species, resource kit principles, overview of the PII Project Process, introduction to the worked example and participants presentations on their projects (Appendix 2)

DAY 2 – TUESDAY 12 APRIL 2011

Provided information on:

- Stage 1 - Project Selection – assessing each project idea and selection of a project with the highest priority
- Stage 2 - Feasibility Study - scoping the project, deciding whether the target species can be successfully eradicated and identify any key issues that would need addressing before the eradication operation is undertaken
- Stage 3 – Project Design - detailing how the project will be managed and governed

DAY 3– WEDNESDAY 13 APRIL 2011

Provided information on:

- Stage 3 – Project Design – continued
- Field trip to Sigatoka Sand Dunes – carried out a Feasibility Study

DAY 4 – THURSDAY 14 APRIL 2011

Provided information on:

- Stage 4 – Operational Planning, covering the following three plans:
    - **Operational Plan:** which covers eradication design and logistical planning
    - **Biosecurity Plan:** which plans the prevention, surveillance and incursion response activities
    - **Monitoring and Evaluation** plan to measure the success of the project
- Stage 5 – Implementation, there are 3 phases:
    - **Pre-Operational Phase:** final preparations are undertaken
    - **Operational Phase:** which is the actual removal of the target species
    - **Post-Operational Phase:** the completion of all the final activities

DAY 5 – FRIDAY 15 APRIL 2011

- Stage 5 – Continued

- Stage 6 – Sustaining the Project: the on-going work required after the eradication operation has been completed. Biosecurity (prevention, surveillance and response readiness) and monitoring outcomes are the main part of Stage 6

EVALUATION SUMMARY

This training was different from future "How to eradicate rodent and cats from islands" training, as it was a pilot. The purpose of the pilot was to test the training course with participants who are representative of the target group.

This required the inclusion of detailed review sessions. These sessions were both in the form of written and group discussions and were held after significant blocks of learning. Participants completed seven reviews that covered the following:

- Achievement of purpose(s) for the learning block
- The Resource Kit
- The learning approach (facilitated sessions, SME, workbook, exercises, progress checks etc)
- Timing
- Ideas for improvements

Participants also completed a final evaluation at the end of the week to assess the overall training.

ACHIEVEMENT OF PURPOSE(S) FOR THE LEARNING BLOCK

Question: How well did the learning block achieve its intended purpose (0=not achieved. 5=Achieved.10=well achieved)

Six learning blocks: Introduction, Stage 1, Stage 2, Stage 3, Field trip and Stage 5 & 6 all received 90% of participants' satisfaction with achieving the purpose. Stage 4 – Operational Planning received 100% satisfaction

THE RESOURCE KIT

Question: For this learning block, how useful was the PII Resource Kit? (Content, ease of use, easy to understand, process and its steps) (0=not useful 5=ok. 10=very useful)

The following learning blocks received 100% satisfaction: introduction, stage 1, stage 4 and stage 5 & 6.

Comments: "Because even though it [the resource kit] can't provide all the answers to all [the] questions we have but [it is] able to provide the answers to our major questions plus very easy to use.", and "easy to use and to follow the process and its steps"

Learning blocks: stage 2, stage 3 and field visit received 90% satisfaction.

Comments: "Easy to use with help of various guidelines" and "easy to use and understand process were well detailed."

THE LEARNING APPROACH

Question: For this learning block, how appropriate was the method of learning used?
(Learning methods range from facilitated sessions, presentations using PowerPoint, group discussions, recap quizzes, exercises, checkouts, progress checks, support from SME) (0=not appropriate. 5=ok. 10=very appropriate)

Learning block – stage 4 received 100% satisfaction from participants.

The other six learning blocks received 90% satisfaction.

Comments: "I really appreciate the diversity of support used and the interactions between the participants and the `trainers' this makes the training more dynamic and pleasant to understand.", "really appreciated the relaxed atmosphere", "great method - mixed media good!!!" and "well facilitated and group discussions very helpful"

TIMING

Question: How appropriate was the time allowed for this learning block? (0=not appropriate. 5=ok. 10=very appropriate)

Learning blocks: Stage 1, stage 2, stage 3 and field visit received 80% satisfaction from participants.

Comments included: "if possible more time for questions", "OK but would be good to give more time for discussions", "could need a bit more time" and "have a site close to the training venue so that maximum time can be used to cover the Feasibility study thoroughly"

Learning blocks: Introduction, Stage 4 and Stage 5 & 6 received 90% satisfaction from participants.

Comments: "I really like the times allocated. Not too long. Not too short", "Good use of timing" and "Need to have more time for this stage since it is quite detailed" (stage 4)

IMPROVEMENTS

Question: What improvements would you suggest?

Introduction Comments: "Dave should learn French and come to New Caledonia to do the training" and "overall presentation of the sessions - ranging from the first to the last session were well achieved, very informative and well structured. Can't wait for the second day."

Stage 1 Comments: "Could allocate more time for the discussion and exercise sessions" and "not only ask participants on their experience, also have somebody to note the main issues down for everybody to work on together"

Stage 2 Comments: "Comprehensive but good stuff. Easy to follow".

Stage 3 Comments: "More progress checks! The afternoon sessions get a bit hard mentally - so a few more active group sessions would be good" and "Define more precisely, why/ how this stage is useful and how it completes the feasibility study and the operational plan"

Field Visit Comments: "Field incursion could involve project selection (prioritising) and feasibility study. Just to help participants with the transition", "a trip to a real island", "more time in the field with a group

debriefing, linked to each group giving its synthesis, not answering to pre-defined questions" and "where possible - go to a real island - otherwise this was a good alternative".

Stage 4 Comments: "The stage content is OK, just need more time to go through the steps thoroughly", and "video of an eradication(show one) ...doing one!!"

Stage 5 & 6 Comments: "Have separate evaluation form for each stage (5 and 6) so that it makes it easier to analyse each stage. Spend more time with stage 6 - I guess it's quite important to cover it more thoroughly", "Management plan writing template for next 5 years in terms of biosecurity" and "link with ground operation could provide a perfect training with "project management" and "implementation" part""

FINAL EVALUATION

Summary:

1	Know the principles that underpin the Resource Kit **(Range: 0=not at all to 5=well)**	80% of participants know the principles that underpin the Resource Kit
2	Know the PII Project Process for an eradication project **(Range: 0=not at all to 5=well)**	100% of participants know the PII Project Process
3	Know the reasons and value for each stage and step in the Process **(Range: 0=not at all to 5=well)**	80% of participants know the reasons and value for each stage and step in the Process
4	Use the Resource Kit to locate information and resources **(Range: 0=not at all to 5=well)**	100% of participants will use the Resource Kit to location information
5	Know where you can access further learning resources and support **(Range: 0=not at all to 5=well)**	100% of participants know where they can access further learning resource and supports
6	Have a plan of where to from here for your project **(Range: 0=not at all to 5=well)**	80% of participants had a plan of "where to from here" for their projects
	Comments/improvements	"Congratulations to PII for creating this great tool! I especially appreciated the worked examples all along the project process" "It could be more clear in the resource kit that it is mainly a tool for project planning and management but that more knowledge is needed to implement eradication in the field"
7	**Resource Kit:** How useful will the Resource Kit be for you? (consider usefulness, content, layout, level of information, ease of use)	80% of participants said the Resource Kit will be very useful for them.
		"Easy to use for reference and to check if plans/ reports are in line with the Resource Kit" "Great tool. Great Job! More link with field methods and scientific references could be great." "the toolkit provides an excellent checklist to project managers/workers on what to do, how and why

		etc."
8	**Training Methods:** Overall, how effective were the methods of learning? (facilitated sessions, presentations with PowerPoint, SME support, practice exercises, progress checks, Feasibility Study Site Visit, ad breaks, use of Resource Kit and workbook) **(0=not effective. 5=effective)**	100% of participants found the training methods very useful. "Very good, especially with participation and discussion which enabled me to contribute and participate. Good to keep doing this as some people can't speak up or participate unless someone (is) asking them to do so." "More time if it was available but it was great" "Good combination of media used."
9	**Training Methods:** What suggestions do you have for Facilitators and Subject Matter Experts to help them improve in their role?	"Be more like Dave when doing their presentations and discussions. To avoid being sleepy during the training" "Overall good facilitation! Good humor. Body language always important"
10	What other comments do you have that would improve the training? (consider venue, accommodation, food, travel)	"All good. Field visit is to be conducted to a real island that has biosecurity risks" "Try to have more scientific references both in the kit and in the training for monitoring and IAS(invasive alien species)biology and invasion biology topics" "Some participants were too quiet (voice wise) it would have been good to have a microphone so can hear. If not the facilitator should/could have summarized the quiet persons contribution"
11	**Overall Opinion** What is your overall opinion of the training course? **(0=not effective. 5=effective)**	100% of participants found the training useful "Enjoyed it! - great to hear/learn from others. Would have liked to hear more of their work in response to the worked examples"
12	What should we do more if in the training	"more group discussions" "Site visit could be a little bit longer" "longer time frame, more group participation"
13	What should we do less of in the training	"At the beginning, less navigation learning…"

ACHIEVEMENT OF OUTOMES

The training has completed its purpose. It has succeeded (80-100%) in teaching participants the principles of the PII Project Process; providing an appreciation of the value of a systematic approach to rodent and cat eradications; and providing participants the knowledge on how to access and use resources to achieve the goals of their projects.

The pilot has completed its purpose. The Resource Kit tools (Guidelines, templates, references etc) and training course are currently in the process of been refined with comments and suggestions made by participants.

NEXT STEPS

The following were requests made by participants to PII

Name	Agency	Requests
Sia Rasalato	BLF	Reviewing of documents Contact with professional goat hunters Logistics Aerial eradication training
Ratita Bebe	MELAD	Technical support and advice
Jone Niukula	NTF	Contact with professional goat hunters Logistics
Julika Bourget	Province Sud	Translation of Resource Kit into French Advice on how to communicate to stakeholders (public, how to write articles and how often)
Julien Baudat	SCO	Reviewing of documents Hands-on-training with other projects (aerial eradication) Would like to discuss the Phoenix Project
Guillaume Albar	SOP Manu	Review of documents Aerial eradication training Help with identifying new sources of funding
Julie Champeau	SOP Manu	Reviewing of documents Moral support

APPENDICES

APPENDIX 1: CONTACT DETAILS

Name	Agency	Email
Training Team		
Dave Wallace	Stella Associates	dave@stellaassociates.co.nz
Derek Brown	Consultant	Derek.brown@xtra.co.nz
Elenoa Seniloli	Birdlife Fiji Programme	seniloli@birdlifepacific.org.fj
Graham Allen	PII	g.allen@auckland.ac.nz
Natasha Doherty	PII	n.doherty@auckland.ac.nz
Souad Boudjelas	PII	s.boudjelas@auckland.ac.nz
Participants		
Guillaume Albar	SOP Manu	galbar@manu.pf
Jone Nuikula	NTF	jniukula@nationaltrust.org.fj
Julie Champeau	SOP Manu	jchampeau@manu.pf
Julien Baudat	SCO	julien.bf@sco.asso.nc
Julika Bourget	Province Sud	julika.bourget@province-sud.nc
Posa Skelton	PILN	posas@sprep.org
Ratita Bebe	MELAD	taibwa@gmail.com
Sia Rasalato	BLF	sia@birdlifepacific.org.fj

APPENDIX 2: PARTICIPANTS PRESENTATIONS

Guillaume Albar's Presentation – SOP Manu

Eradication of Pacific rat *Rattus exulans* on Vahanga atoll, French Polynesia

Manu

Pacific Cooperative Islands Initiative

Key issues

› **Non-target, endangered species**

Present in very low numbers on the atoll
Polynesian Ground-doves will be placed into captivity until bait has gone
Tuamotu Sandpipers, Atoll Fruit-doves will be monitored

› **Implications for local communities**

Vahanga is inhabited during a part of the year, for coprahculture
Need to ban comsumption of marine food and coconut crabs during one year

› **Logistics !**

Vahanga is very remote : logistics are complicated and expensive

Location of the project

My role in the project

Assisting Anne Gouni, main leader of the project

Combined field trip on Tenararo during the Vahanga operation

Current project stage

Feability study and operational plan submitted to review by experts a few days ago in Auckland (IEAG)

→ Due to financial and technical uncertainties with the Gambier operation, the Vahanga project has been postponed to mid-2012

Stage in the PII Project Process

Operational planning

Target species

→ *Rattus exulans*

No evidence of other mammal species on the island

--> *Lantana camara* (one hectare only)

Land area of Vahanga

→ 382 ha, of which 30% are vegetated

Main bird species that will benefit from the project

→ Polynesian Ground-Dove (CR)
→ Tuamotu Sandpiper (EN)
→ Atoll fruit-dove (NT)
→ Murphy's petrel (NT)

Jone Niukula's Presentation – National Trust of Fiji Islands

National Trust of Fiji Islands
our heritage in trust

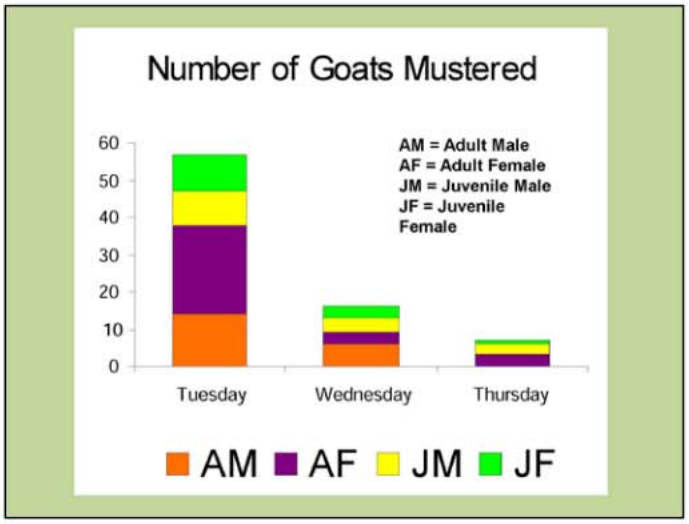
Monuriki Iguana Recovery Project

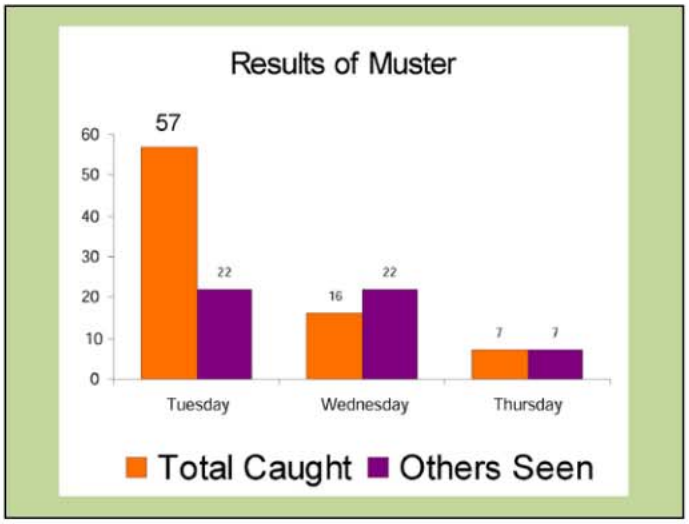
THREATS

PARTNERS

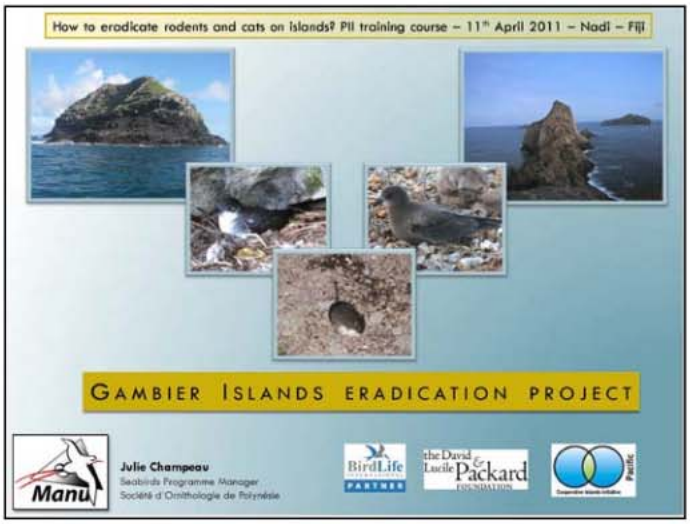
Landowners - Mataqali Vunaivi
Kula Educational Centre
Yanuya Rugby Team
Nadroga Provincial Office
Pacific Invasives Initiative (PII)
BirdLife International
National Trust of Fiji

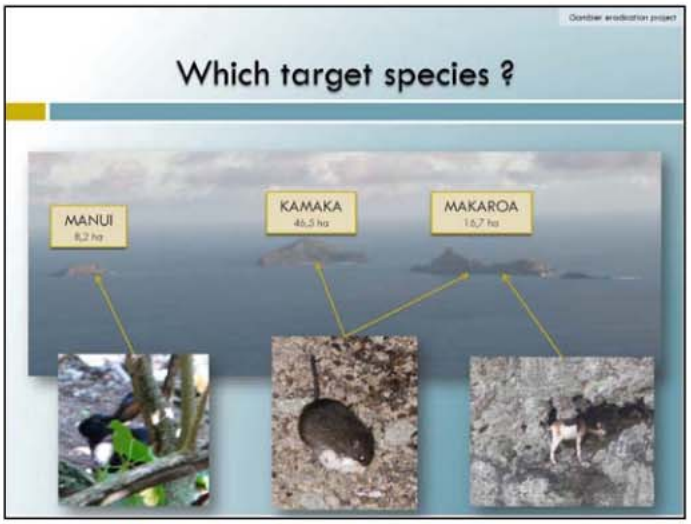
GOATS

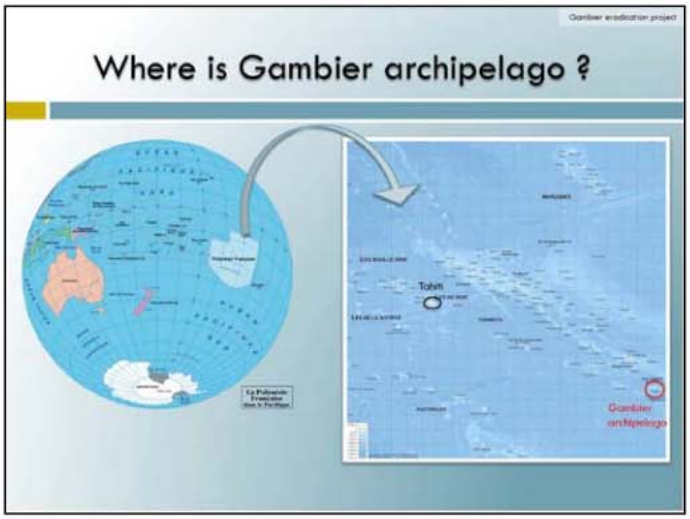

Number of Goats Mustered
60
50
40
30
20
10
0
AM = Adult Male
AF = Adult Female
JM = Juvenile Male
JF = Juvenile Female
Tuesday
Wednesday
Thursday
AM
AF
JM
JF


Results of Muster
57
22
16
22
7
7
60
50
40
30
20
10
0
Tuesday
Wednesday
Thursday
Total Caught
Others Seen

Julie Champeau's Presentation – SOP Manu



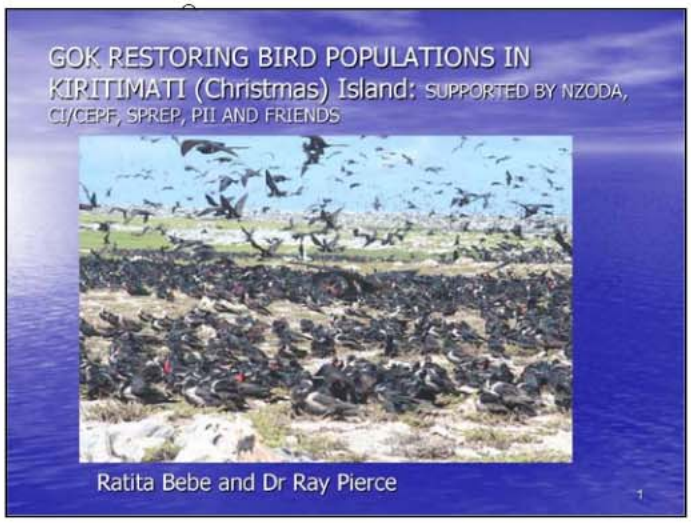


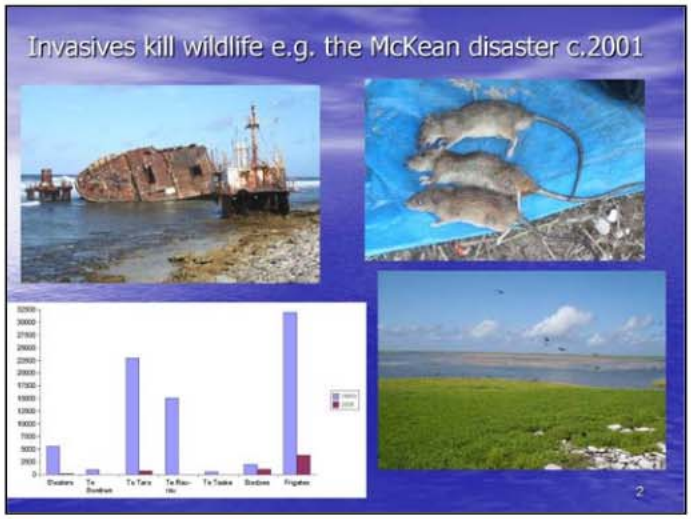


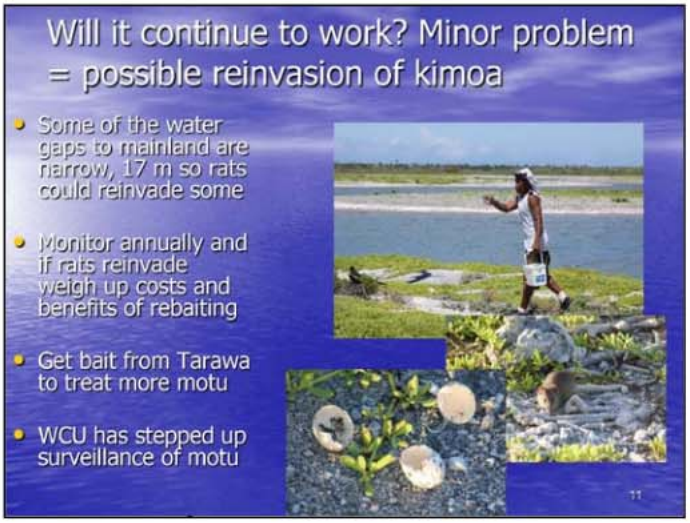

What's happening now ?
We are here!
Sustaining the Project
Feasibility Study
Project Design
Implementation


Vinaka!

Ratita Bebe's Presentation – Ministry of Environment, Land and Agricultural Development Kiribati







Major problem 1 = *Rattus rattus*

- Black rats invaded CXI 10+ years ago and have moved slowly as far as Banana, maybe further…
- If they get to the small motu then we will lose most of the seabirds
- WCU is monitoring *Rattus rattus* spread at key sites to be ready for them with bait etc if they invade Motu Tabu, central lagoons and BOK areas

Major problem 3 continued –
main poaching key areas in 2007-9 (circles) and potential sites (squares)

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Major problem 2 - Biosecurity and how to stop more invasions

- Tighter regulations coming with eg. Bios Act, observers on fish boats
- Inter-island boats now being targeted for rats - need special surveillance and verification of status
- Port biosecurity
- Some bait from Tarawa, SPREP (Samoa) and New Zealand
- Education, advocacy

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Going forward at PIPA and CXI…

- More eradications of invasives at PIPA and CXI
- Biosecurity improvement at PIPA and CXI
- Motu biosecurity at CXI (in train)
- Monitor bokikokiko and seabirds (in train)
- Monitor black rats and develop contingency plans
- Mainland management, e.g. cats, rats and weeds in key areas (need clear plan, bait and shotgun permit from Tarawa)
- Anti-poaching plan
- Ongoing technical support/advice
- Equipment lists

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PIPA plan is to restore the other islands

- Enderbury – large (600 ha), rats (cats died out), diverse extensive ecosystems and Birnie (50 ha, rats) both planned for 2011
- Kanton still has major biosecurity risks
- Orona, Manra, Nikumaroro also later

5

2009 WCU rat eradications

- Firstly determine if rats present
- Secondly grid the island
- Then throw out bait

8

Kiritimati in Line Islands

- A bird paradise but the birds are declining…
- Increasing human population, tourism, invasives, biosecurity risks
- Ex PIPA bait shipped to CXI 2008

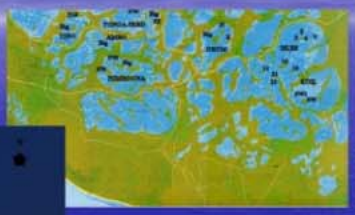
6

Did it work? Now checking success

- The ones checked so far in 2010 and early 2011 appear to be rat-free
- Te Tarangongo etc now nesting successfully
- Te ruru nesting successfully

9

WCU used bait to target kimoa on 29 motu mainly in the central lagoons



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Did it work? (continued)

- Found BKO on Nimroona
- Found increase in skinks
- Will also benefit many others like te bwebwe ni marawa, shearwaters etc.

10

Where are these projects reached in PII project stage?

- CEPF – Operational / 4
- Restoration project for PIPA – Implementation / 5
- Restoration project for CXI – Implementation / 5 and Sustainability / 6

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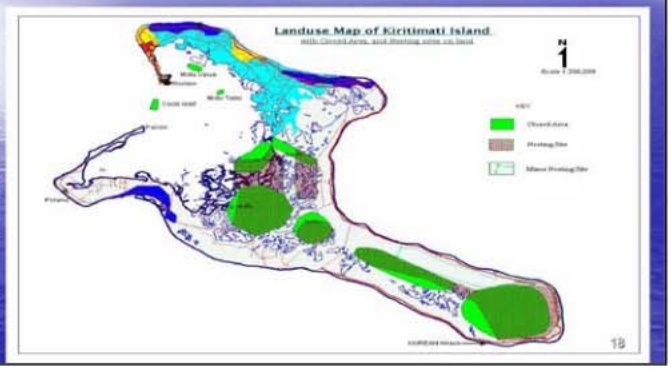
Kam rabwa ao tekeraoi



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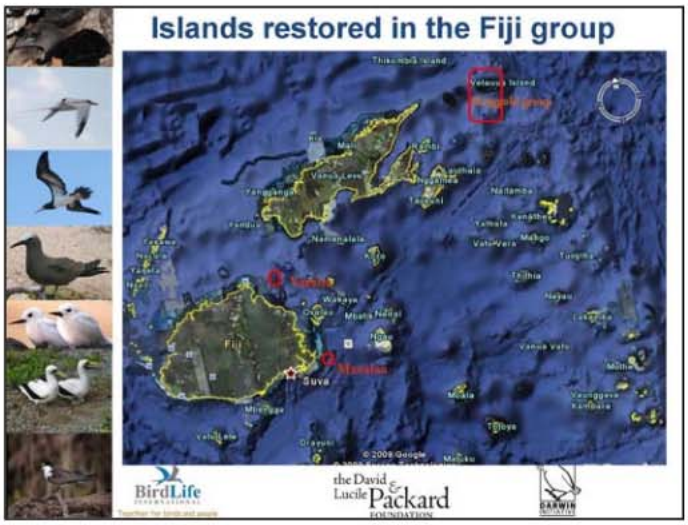
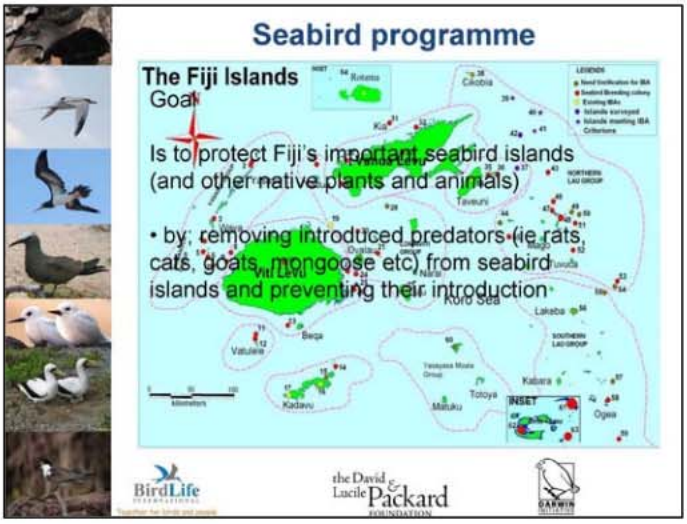
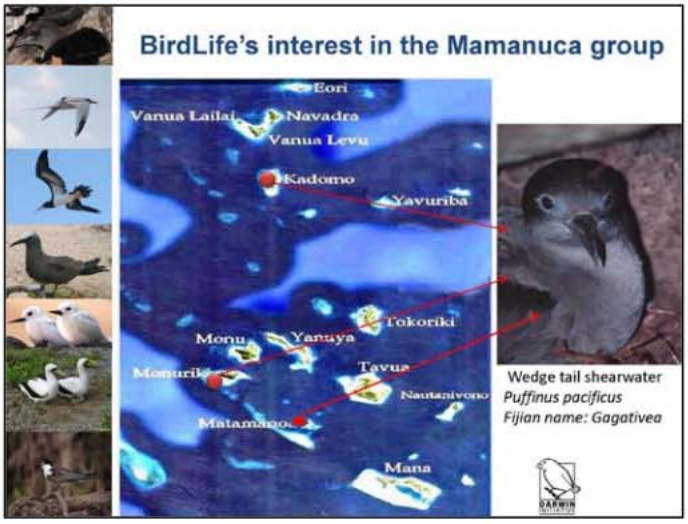
Sia Rasalato's Presentation – Birdlife International Fiji Programme







Julika Bourget's Presents – Province Sud New Caledonia

Gestion de la réserve naturelle de l'île Leprédour

PROVINCE SUD

Contexte et enjeux

PLAN

1. Contexte, objectifs & enjeux du programme de restauration écologique de « Leprédour »
2. Axes de gestion de restauration de la réserve
3. État d'avancement du programme
4. Choix de la méthodologie d'éradication lapins et rats / Leprédour
5. Phasage des opérations « lapins / rats »

Objectif du programme "Leprédour" :
→ parvenir à restaurer le fonctionnement des écosystèmes d'intérêt patrimonial de la réserve

Biodiversité exceptionnelle

- ✓ 30 ha de forêt sèche : écosystème le plus menacé en NC
- ✓ Espèces rares et très rares : *Pittosporum tanianum, Eugenia lepredouri*, ... (33 % de mortalité en 2007 de l'sp. microendémique)
- ✓ Abrite une mangrove de 200 ha d'un seul bloc : UNIQUE en NC

Le problème ?

En l'état :
- La forêt sèche se réduit, se morcelle
- Aucune régénération possible
- Les arbres et lambeaux forestiers restants condamnés

La cause : les espèces envahissantes ...

« constituent la 3ème menace pesant sur les espèces à l'échelle mondiale. En outre-mer, les invasions biologiques représentent l'une des principales causes d'érosion de la biodiversité, avec des conséquences importantes sur les plans économique et sanitaire » (IUCN)

Objectifs et enjeux

- Préserver la biodiversité de la réserve
- Préserver la Grande Terre de toute invasion de lapins
- Prévenir de graves crises économiques et sociales

Axes du plan de gestion

(approuvé en Comité de l'environnement en mars 2009)

✓ Réduction des CERFS au niveau « 0 » et son contrôle
(+ de 400 cerfs abattus depuis décembre 2009 par la FFCNC)

✓ Eradication des LAPINS

✓ Contrôle des RATS au niveau « 0 »

✓ Contrôle et suivi des EE végétales

✓ Restauration active des écosystèmes (implantation d'ERM, dynamisation des écosystèmes)

Solutions ?

- Gérer les espèces envahissantes : contrôle ou éradication
- Ensuite, restaurer les écosystèmes

Avancement du plan de gestion

- Étude de faisabilité du Landcare Research (2007)
- Inventaires flore /faune (IRD, IAC)
- Expertise des méthodes et possibilités de contrôle ou d'éradication des EE sur Leprédour (2008-2009)
  → cerfs : chasse
  → lapins et rats : empoisonnement
  → EE végétales : coupe manuelle et suivi
- Evaluation du point « 0 » en vue d'une restauration écologique (formations végétales, cerfs, rats et souris, avifaune, herpéto et myrmécofaune, tests de germination ...) / 2009-10
  → mise en place de protocoles de suivi des milieux (70 stations)
- Expertise des méthodes visant à éradiquer les lapins et les rats par le West Coast Regional Council
  → Confirmation de la stratégie
  → Détermination technique précise des moyens à mettre en œuvre (dosage des appâts, protocoles différenciés selon zone, ...)

Mise en œuvre

- Projet multi-partenaires : scientifiques (IAC, IRD, programme FS, Landcare Research, West Cost Regional Council), Gvt NC, l'Etat
- Pilotage provincial par sa compétence
- Application du code de l'environnement : lapins, rats et souris classés en espèces envahissantes

Avancement du plan de gestion

Invasive Species
IRD — Institut de recherche pour le développement
IAC — Institut Agronomique néo-Calédonien
THE WEST COAST REGIONAL COUNCIL
PROVINCE SUD
Forêt Sèche
NOUVELLE CALEDONIE
Liberté • Égalité • Fraternité
RÉPUBLIQUE FRANÇAISE

Réunions régulières techniques et de décision par groupe technique multipartenaires

APPENDIX 3: GROUP ACTIVITIES

Day 1 - Monday 11th April 2011

Introduction to Resource Kit

SESSION: Setting the scene

Biological importance of Islands

Why are we interested in saving Biodiversity on Islands

Many species are endemic species	Less chance of re-invasion
Emergency situations (contingencies)	More practical on islands
Easier on islands / Feasible on islands / Manageable on islands	Because people live on islands
Islands are heavily impacted by invasive species	

How are Pacific island people reliant on their natural environment?

Resources – food	Income - tourism
Culture/heritage	Medicine
Wood	Water

The threat from invasive species

When does a species become an invasive species?

New species that cause problems because:

Competitive	Diseases
Predation	Decline in other species
Spreads	Costs money
Changes habitat	Damages crops

How do invasive species impact

What are some examples of invasive species and impacts that you are aware of?

Invasive Species	Impacts
Rabbit	Vegetation damage, increase in raptors (changes in predator prey balance),

	competition for burrows and trampling.
Goats	Trampling, vegetation damage and burrows.
Black rats	Predation, spread diseases, crop damage, biodiversity damage, health issues, culture issues, economics and damage food

Day 2 - Tuesday 12th April 2011

Stage 2: Feasibility Study

SESSION: Step 2.3 Describe the Target Species

Impacts and benefits of cats and rodents and the benefits of eradicating them

Impacts	Benefits of eradication
Competition with native species. Predation – seabirds, land birds, lizards, flora, crabs, food crops.	Increase in seabirds Restoring large area of forest
Health – diseases	Avoiding diseases, better health
Economy	Money increase – greater production
Food	Changing people's habits
Housing	
Nuisance (lifestyle)	Less hardship for women Avoiding further spread.

SESSION: Step 2.10 Notify the Stakeholders

Identify some different way that could be used to notify stakeholders

- Radio
- Public meetings
- Newspapers
- Factsheet
- Twitter
- TV
- Billboards
- Face to face
- Email
- Text Messages
- Newsletters
- Facebook
- Notice boards

Day 4 - Thursday 14th April 2011

Stage 4: Operational Planning

Plan How to Manage the Non-Target Species Risks

What are some common ways of mitigating the risk to non-target species?

- Removal (temp) of non target species - ground doves for the Aleipata Islands
- Translocation to another island
- Fencing – chickens on the Ringgold islands (containment)
- Avoid certain time e.g. breeding season
- No harvest/take areas – signs/notifications
- Scare non-targets e.g. curlew and raptors during operation
- Collect carcass – reduce secondary poisoning
- Use bait stations on specific sites
- Kill them before e.g. goats and rabbits eat baits
- Increase bait rate
- Bait types (color, size)

Biosecurity

What are the common pathways for invasive species getting to Islands?

- People (landowners/poachers)
- boats (tourist, yachts, cargo ship, fishermen, project team)
- helicopters and planes
- Swimming
- drift wood/logs

What are some simple prevention measures for this Pathway?

- Bait station on boats and island itself
- Information – education of people, signage
- Body search, bag search
- Quarantine – inspection
- Restricted access
- Immediate disposal of rubbish or containment
- Legislation
- Sniffer dogs
- Tapu on site (sacred site)

SESSION: Step 4.10 Plan the Safety of People

What are some of the potential risks for residents when using toxins

- Children eating baits
- Secondary poisoning – people eating contaminated food (crabs, cattle, etc) and drinking contaminated water
- Exposure – from handling bait and breathing in (particular for project team)
- Project team safety when dealing with angry residents and/or protestors
- People deliberately eating bait – suicides

How can the risks be managed?

- Information – radio, meetings (timing: early, just before and after), signboards etc
- Medical people up–to–date with what toxins are used – antidote available
- Monitoring/testing of water for brodifacoum contamination – provide water tanks, bottle water for several weeks to drink.

SESSION: 4.11 Logistics, 4.12 Equipment, 4.13 Operation Tasks, 4.14 Operation Team

Logistics

- Upon ordering the bait, the Technical Co-ordinator will liaise with the ACP Manager to organise arrival of the bait to Port Pacifica at least two weeks in advance of the proposed start date of baiting.
- The NPC's 3-tonne Dyna truck and crew-cab Hilux will be available to ferry team members and equipment between Port Pacifica and Magaia.
- Accommodation on the islands will be in tents or under tarpaulins provided by NPC, or in the temporary huts that exist on Far Island.
- As current mobile phone coverage in Pacifica does not cover these islands, and NPC do not have a satellite phone, the Technical Coordinator will hire a satellite phone prior to departure.
- The Project Manager will ensure the bait is stored well away from any item that could contaminate the bait and make it less palatable (e.g. fuels, herbicides).
- Non-perishable food will be ordered well in advance, and in bulk, which will result in economic savings
- Fresh food will be purchased on the evening prior to the planned departure for each field team. Resupply can occur if necessary each time the boat travels to the island
- Most locals will stay in their normal residences until required for the island work

Equipment List

- VHF radios and charging devices - Two per team - PM to obtain
- 2 GPSs for track cutting team
- Warning Signs and posts (+ nails and hammer) - Landing sites, both islands - Project Manager to arrange
- Lifejackets - Both islands - APM and Boat Operator to work together to ensure there are enough
- Cups, plates, eating utensils, water bottles, bedding - Both islands - Everyone to supply their

own
- Bait (2825kg of Pestoff 20R) - Both islands (Take 2300kg to Far, 525kg to Away) - Technical Co-ordinator
- Dry-bags and waterproof bins - Both islands - Project Manager (Tech Co-ordinator may be able to help from NZ)
- Tents and tarpaulins for up to 10 people - Both islands - Asst Project Manager (APM)
- Satellite phone

Operational Team

- V. Reed - Project Manager - Management of entire project and the project team
- V. Reed - Project Manager - External communication, Stakeholder engagement
- NPC team (4) and Magaia villagers (4+) - Track Cutters - Cut tracks on both islands
- M. Toa Technical coordinator - Advice to Project Manager in planning - Bait ordering and transportation
- F. Paua - Assistant Project Manager/ Ass. Tech co-ordinator - Lead field team to capture ground doves
- A. Eagle (Auckland Zoo) - Aviculturalist - Capture of ground doves, transfer to captivity, maintenance in captivity
- R. Suleosi - Mapping, and computer support - Provide and maintain effective maps and software for GPS mapping required

Task Schedule

- First version of Biosecurity Plan - D. Sagolo - By 15 December 2010
- Final reviewed version of Biosecurity Plan - D. Sagolo - By 15 February 2011
- Approval to use toxin from Registrar of Poisons, MAF - PM - By 5 March 2011
- Obtain quality GIS map of islands and GPS software - PM & NPC GIS specialist - By 5 March 2011
- Purchase safety equipment - PM (may be delegated to Technical coordinator) - By 20 May 2011
- Order warning signs - PM 1 - By May 2011
- Dispose of toxic rubbish in approved fashion - PM and Technical coordinator - At conclusion of baiting
- Project Report - PM - September 2012 - Date depends on post-eradication monitoring dates

<u>Stage 5 – Implementation</u>

Who would be involved in the implementation phase?

- Project Manager
- Team
- Stakeholders
- Technical advisor

Where would you find the equipment requirements that you need to purchase?

- In the Operational

- Biosecurity
- Monitoring and Evaluation plans

Where would you find the training requirements for staff?

- Capacity section of the Feasibility Study Report
- Project Plan
- Task Schedule of the Operational Plan
- Biosecurity Plan
- Monitoring and Evaluation Plan

When would you start sourcing the equipment?

- As early as you possibly can following sign off of operational plan

When can you begin working on these steps?

- As soon as the operational plan has been signed off

What order must steps 5.3 to 5.6 be completed?

- Any order – they can all be worked on at the same time

Day 5 - Friday 15th April 2011

Stage 5: Implementation

SESSION: Step 5.9 Hold a Pre-Operation Briefing

What could be covered in the pre-operational briefing

- Contingencies and emergencies
- Responsibilities
- Who goes where?
- Information recording
- On-site training
- Observer supervision
- Health and safety
- Timing synchronizing time
- Food, water, logistics
- Communication – contact list, lines of communication
- Work through tasks together
- Set standards
- Checklist
- Get team to ask any questions
- Keep to the plan
- Get team motive
- Timeframes
- Site security
- Equipment – tested and ready to go

SESSION: Step 5.11 Conduct Post-Operation Tasks

What tasks would need to be completed as post-operational step

- Monitoring the uptake care – bait
- Communicate with stakeholders (public, government, landowners, tourist, etc) – advise project has been completed

- Carcass search
- Removal of signs
- Release of non-target species
- Removal of campsite
- Retrival of all equipment
- Removal of flagging tapes, rubbish disposals, clean campsites
- Celebrate with team – THANK THEM!! PARTY!!

Stage 6: Sustaining the Project

SESSION: Biosecurity – Steps 6.2 Prevention, 6.3 Preparedness, 6.4 Surveillance, 6.5 Response

Where would you have the equipment for responding to an incursion?

- At base but specifically designated for incursion response – not used as part of general equipment

How do you maintain your team's preparedness?

- Training, practice, information-sharing, provide examples of good preparedness, help them by having equipment lists, check-lists & plans already prepared as much as possible in advance

What methods of surveillance do you think work best for rodents or cats?

- Depends on the circumstances of each island – select the best methods for your islands based on local knowledge of the islands, and information on the various surveillance methods supplied in the Resource Kit. [For example, some very good techniques such as baited traps may not be practical where crabs will steal the bait, or kill-traps may not be suitable for where some important non-target species may be at risk from the traps]

Where is all the information on biosecurity for your project contained?

- Biosecurity Plan